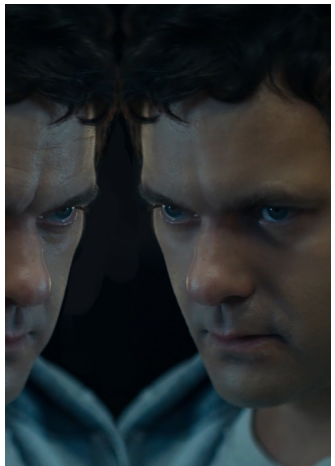
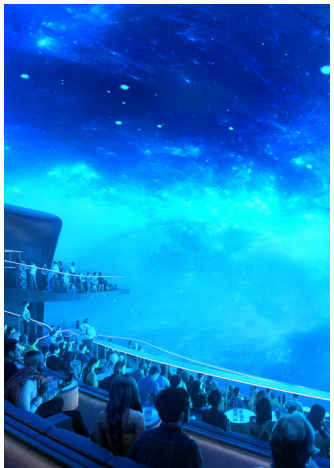
NVIDIA RTX All Stars: Media and Entertainment Edition





NVIDIA RTX All Stars: Media and Entertainment Edition

To create the highest-quality visuals in film and television, studios and creatives need powerful technologies that help them push boundaries in content creation. Many professionals across media and entertainment (M&E) use NVIDIA RTX™ solutions to tackle these workflows easily—whether they're bringing storyboard ideas to life, animating realistic digital characters, or building the next scenes for virtual productions.

The latest generation of RTX professional GPUs lets creatives harness the power of real-time, ray-traced rendering and AI to visualize their models faster. With RTX supporting other groundbreaking technologies like NVIDIA Omniverse™ Enterprise, professionals can work on complex designs remotely and collaborate with global teams simultaneously.

Hear from innovators and creators across the M&E industry who are using RTX solutions to deliver captivating cinematics in film and television. These creatives, along with their teams, are shaping the future of storytelling as the next NVIDIA RTX All Stars.



Seyhan Lee

Yiotis Katsambas

Executive Director of Technology

Sony Pictures Animation

> "RTX 6000 GPUs make it easy for our artists to work and review in a browser without needing powerful machines."



Transitioning storyboard panels into 3D graphics can be challenging. This is why Yiotis and his team at **Sony Pictures Animation** wanted to explore new ways to optimize preproduction workflows and give artists more flexibility, enabling 2D artists to still use the tools and apps they're familiar with and navigate through 3D worlds.

Building on **NVIDIA Omniverse Enterprise**, the team developed an internal application called FlixiVerse—their "portal to the third dimension." FlixiVerse allows the storyboarding team to navigate 3D scenes using a simple viewer and game controller, so any artist can enter a scene and iterate in 3D.

FlixiVerse syncs files automatically in minutes and runs on any computer. The app, built on Omniverse Kit, is also web-based. Content is streamed from onsite computers, and it leverages a pool of PCs at the studio, along with a server powered by **NVIDIA RTX 6000 Ada Generation GPUs**.

"The RTX 6000 GPUs make it easy for our artists to work and review in a browser without needing powerful machines," said Yiotis. "By having machines at the studio and close to the data center, it's much faster to load and run 3D models. And we don't need to transfer files anywhere. We can just load directly from the network."

Omniverse's OpenUSD (Universal Scene Description) helped jump-start development and interoperability with Sony's existing pipeline. The team used extensions from the Omniverse extension library, which helped them convert complex 3D scenes into lightweight representations.

"Having USD support made it easier for us to import and export 3D models," Yiotis said. "Previously, it took artists quite some time to prepare files before transferring them to others for review. But we created a script that would use Omniverse commands to take live files and quickly export them to Omniverse Nucleus."

Yiotis says this new USD-based workflow has allowed his team to prepare files in just minutes, saving potentially weeks in development time.

Learn more about Sony Pictures Animation by watching their **GTC session**.



Matt Panousis

COO

Monsters Aliens Robots Zombies (MARZ)

> "For VFX, we use NVIDIA RTX GPUs for faster rendering. And for machine learning, we use RTX to train the models and enhance inferencing."



Matt constantly looks for ways to enhance creative workflows at **Monsters Aliens Robots Zombies (MARZ)**, a visual effects (VFX) studio and tech company based in Toronto.

As audience expectations for high-quality content keep growing, Matt knew traditional VFX workflows wouldn't be enough to keep up with demands. The team needed a solution that would help them create VFX faster without breaking the budget. So they turned to AI and developed their own solution called Vanity AI.

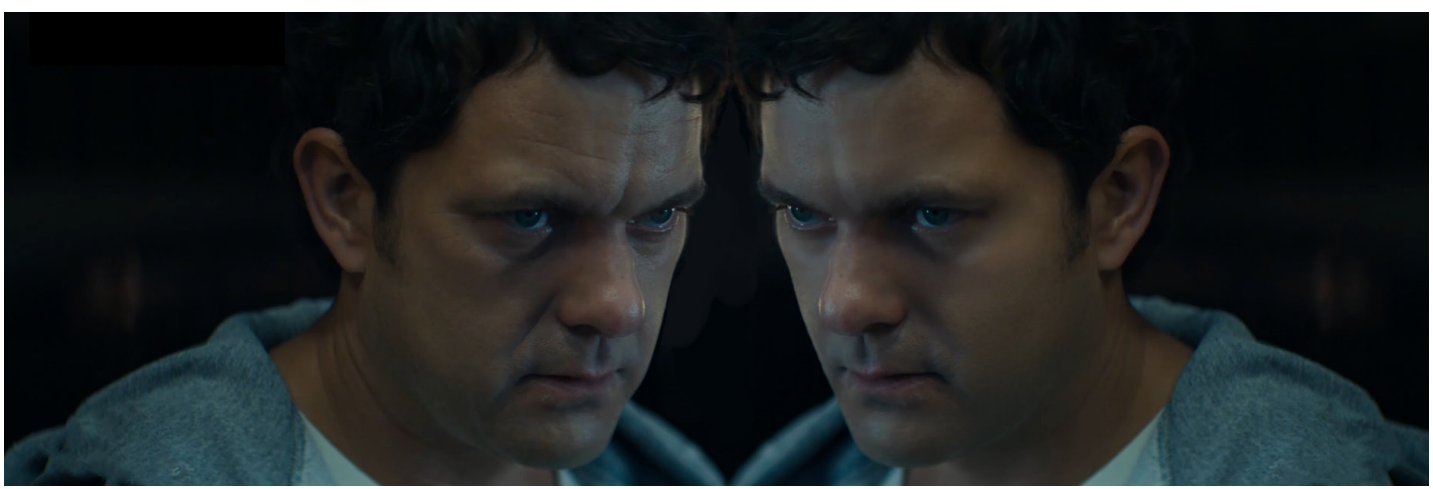
The first end-to-end AI solution for Hollywood VFX, Vanity AI is a tool for implementing cosmetic effects, such as aging and de-aging. The technology is up to 300 times faster than traditional VFX pipelines, significantly more cost-effective, and has no capacity constraints.

MARZ's solutions are powered by NVIDIA RTX technologies. They have over 200 **RTX A6000 GPUs** in their infrastructure, which enable the team to accelerate AI training and inferencing. And with with the professional RTX GPUs, they never have to worry about being limited by hardware setup.

"All our workflows are powered by NVIDIA RTX technology," said Matt. "For VFX, we use RTX GPUs for faster rendering. And for machine learning, we use RTX to train the models and enhance inferencing."

At MARZ, machine learning researchers and artists regularly work together to find what tools the industry needs. "Not many firms exist with that level of VFX capabilities combined with this level of AI software capabilities," said Matt.

Learn more about MARZ by watching **their latest video in the M&E Speaker Series**.



Brian T. Nowac

Founder and CEO

Magicbox

> "The NVIDIA RTX A6000 helps us bring the LED volume to life."



Virtual production has helped many studios achieve new levels of movie magic, but not all creatives can afford the time and expense to integrate virtual production into their workflows. Brian wanted to provide artists with a solution that delivered faster results and more creative options but in the most cost-effective way possible. He knew that LED volumes could bring value to productions, but there were many challenges building massive LED volumes. So Brian had another idea—what if there was a way to create a small, portable LED volume instead?

That's how his idea for Magicbox was born. The Superstudio is a semi-trailer that transforms into an LED volume. It can be delivered anywhere, from soundstages to parking lots. And about 30 minutes after Magicbox arrives at its location, it can be completely morphed into a fully functioning LED volume. Magicbox is powered by **several NVIDIA RTX A6000 GPUs**, which deliver the high performance needed to handle the intense graphics applications used for virtual production inside LED volumes.



"The NVIDIA RTX A6000 helps us bring the LED volume to life," said Brian. "It delivers hardware-accelerated ray tracing, so we can create realistic effects, like lighting and shadows, to make content more engaging and immersive."

The RTX A6000 also enables generator locking (genlock), which helps ensure the LED walls and the content are always in sync. And Brian can also use the GPUs to integrate AI for advanced denoising, so they can reduce render times while bumping up the quality of graphics.

"We love the RTX A6000 so much, we doubled them in each render node using NVIDIA® NVLink®," he said. "This allows us to render the most complex scenes in real time."

Learn more about Magicbox by watching **their latest video in the M&E Speaker Series**.

Devin Poolman

CTO and CPO

Cosm

> "The RTX 6000 has allowed us to do more with less. We can bring more elements and visuals into the environments without worrying about audiences being distracted by the technology."



Cosm is a full-stack, immersive technology company that bridges the digital world with the physical one. Devin and his team aim to create a unique sports experience that lets audiences immerse themselves in any game. Viewers can do this at Cosm's venues, which feature LED domes that are 100 feet wide and video displayed at 8K resolution or higher.

For Devin, it was important to bring these graphics to life in a way that feels natural. That's why NVIDIA plays an important role in Cosm's production workflows, from capturing content to bringing it to displays. The **NVIDIA RTX 6000 Ada Generation GPU** has helped creators build more realistic environments and integrate more graphics into experiences, all while cutting down rendering times.

"Simply put, the RTX 6000 has allowed us to do more with less," said Devin. "We can bring more elements and visuals into the environments without worrying about audiences being distracted by the technology—it blends together seamlessly."

To provide the best experience possible, their graphics pipelines take advantage of Unreal Engine to drive realistic graphics. And they often distribute video content to multiple locations at once.

With NVIDIA technologies, Cosm can take all the capabilities of mixed reality and bring it to life without the need for headsets. Devin and his team can create an LED dome experience and control every single pixel on the display, putting sports fans at the center of all the action. And by integrating solutions like NVIDIA Rivermax®, the creators at Cosm can tackle even higher resolutions for video content.

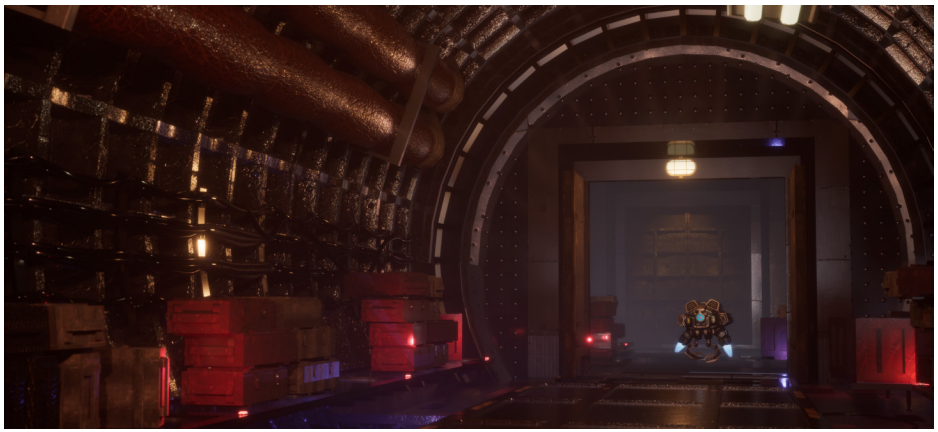
Learn more about Cosm by watching **their latest video in the M&E Speaker Series**.



James Markham Hall Jr.

Co-Founder

Gold Creek VR



> "Our goal is to create imperceptible visual effects. The NVIDIA L40 GPU gives us the power to do just that."



Gold Creek VR is an award-winning immersive production company. They specialize in using stereoscopic 3D, virtual reality (VR), augmented reality (AR), and advanced virtual production filmmaking technology to deliver the next level of storytelling.

Gold Creek VR's state-of-the-art virtual production process requires the most advanced professional virtual production filmmaking tools available. To support the production of their upcoming interactive feature film THROWDOWN, James and his team developed an innovative 8K virtual production workflow.

In their process, live-action performances are captured against blue and green screen sets in 8K resolution using Panavision cameras and optics, while real-time camera-tracking data is acquired through the NCam Reality MK2 system. These elements are paired with photorealistic virtual environments created with Unreal Engine 5 through advanced compositing using Nuke by Foundry.

THROWDOWN uniquely combines movies and video games in a Navigational Cinema experience, allowing users to choose what happens at various decision points throughout the film, so they can influence the story as it unfolds. Using supported headsets, THROWDOWN viewers get to become part of the film, with the option to interact and engage with fully immersive VR sequences and mini-games created with NVIDIA Omniverse and Unreal Engine 5.

To render and composite the high-resolution scenes and virtual worlds in THROWDOWN, James and his team leveraged the NVIDIA L40 GPU, powered by the NVIDIA Ada Lovelace architecture, which delivers the highest level of power and performance for visual computing workloads in the data center.

"At Gold Creek VR, our goal is to create imperceptible visual effects. The **NVIDIA L40 GPU** gives us the power to do just that," said James. "Delivering THROWDOWN to the highest of standards in 8K resolution for a global audience is only possible by specifically utilizing the latest RTX technology, AI accelerated frame generation with DLSS 3.0, and 48 gigabytes of GPU memory found in the NVIDIA L40 GPU."

Learn more about James and **Gold Creek VR**.

Pinar Seyhan Demirdag

Co-Founder

Seyhan Lee

> "With the NVIDIA A10 GPU, we achieve powerful accelerated performance for our generative AI applications."



Pinar has recognized the creative potential of generative AI since 2017. And when she co-founded **Seyhan Lee** with partner Gary Koepke, their mission was to build a company that would help drive the film industry's adoption of generative AI.

Seyhan Lee aims to address all the common challenges in traditional VFX across the film industry. Through generative AI, studios and individuals can more easily develop immersive experiences and captivating creative content. With demands for high-quality content higher than ever, Pinar wanted to help more users adopt generative AI by creating a solution that allowed artists to go from concept to camera in real time.

So they developed Cuebric, a tool that streamlines the production of two-and-a-half dimensional (2.5D) environments in virtual production stages. Cuebric provides studios and individuals with advanced AI capabilities, including text-to-image generation, image segmentation, image-in-painting, and image upscaling.

These AI workflows are all running on the **NVIDIA A10 GPU**. Pinar and her team leverage the inferencing capability and memory size of the GPU to deploy state-of-the-art models and innovative services to their customers with advanced speed and accuracy.

"We're very grateful for NVIDIA for being our partners since day one," said Pinar. "With the NVIDIA A10 GPU, we achieve powerful accelerated performance for our generative AI applications."

Pinar also uses NVIDIA TensorRT™ and CUDA® to optimize general development and compilation of AI.

Learn more about Seyhan Lee by watching **their latest video in the M&E Speaker Series**.



Featured Partner Applications



Foundry Nuke



Redshift



Cuebric



Epic Games Unreal Engine

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Learn more about: **NVIDIA RTX technology.**

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